

Amendments to the Specification:

Please replace the two paragraphs beginning on page 3, line 7 in the specification as originally filed with the following amended paragraphs:

Figs. 5A - 5F ~~illustrates~~ illustrate views of a cantilever configured with valves for gas flow in accordance with an aspect of the present invention; and

Fig. 6 shows a variation of the cantilever configuration illustrated in Figs. 5A - 5F.

Please replace paragraph [14] in the specification as originally filed with the following amended paragraph:

In still another embodiment, one or more diaphragms (electrostatically, piezoelectrically, or thermally actuated) can be integrated into the cantilever f100 via known MEMS techniques to provide gas flow (such as by applying a vacuum or lower pressure to the channels) or fluid flow through the channels from a source of gas or fluid that is provided to the device. Alternatively, a co-resonant pendulum pump with or without valves (as shown in the views of Figs. 5a - 5F ~~Fig. 5~~), and/or thermal (pressure differential by fluid or gas heating) pumps can be incorporated into the cantilever f100 also using known MEMS techniques to provide gas or fluid to the tip. This aspect of the invention avoids having to directly connect the cantilever to an external supply to provide the fluid flow and control. A local and/or MEMS based flow control may also be used to regulate an external supply or server as an additional regulation of the diaphragm or thermal pumps above.